476992

NEW MEXICO STATE UNIVERSITY
AGRICULTURAL EXPERIMENT STATION
AND
UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NOTICE OF THE NAMING AND RELEASE OF NOGAL BLACK GRAMA FOR SOIL STABILIZATION AND RANGE FORAGE.

The Agricultural Experiment Station of New Mexico State University and the U. S. Department of Agriculture Soil Conservation Service announce the naming and release of 'Nogal' black grama. They cooperatively tested and developed this variety at the Plant Materials Center, Middle Rio Grande Branch Station, Los Lunas, New Mexico.

'Nogal' black grama (Bouteloua eriopoda Torr.) was tested under the experimental designation NM-44. It is a long-lived, warm-season, low-growing, stoloniferous range grass. Stems range from upright to decumbent. Natural propagation is mainly by stolons.

The original seed was collected in 1957 from many plants in a good native stand on a sandy loam soil along U. S. 85, 45 miles south of Socorro, New Mexico. Plot testing was conducted at the Los Lunas Plant Materials Center and at the Main Station, Las Cruces, New Mexico. Field testing under actual use conditions was done on various farms and ranches in the southern half of New Mexico.

Black grama strain trials containing 'Nogal' were planted in 1958, 1961, and 1967 at Los Lunas. Eighteen strains were represented. 'Nogal' was significantly better than 'Sonora' in stolon spread (Table 1). Its herbage production was above the average of the group every year except

in 1970. It produced more seed than any other strain. 'Nogal' produced significantly more pure live seed than 'Sonora' in 1969.

'Nogal' produced significantly more bulk seed than NM-45 in increase fields at Los Lunas (Table 2). Seven-year average bulk seed yields for 'Nogal,' A-3730, and NM-45 were 73, 65, and 42 pounds per acre, respectively.

Ocular evaluation of irrigated black grama strains at Las Cruces indicated 'Nogal' was not significantly different than 24 other strains in seedling vigor, stand, herbage production or bulk seed yield over a four-year period (Table 3).

'Nogal' black grama was field tested without supplemental water at 13 locations in the southern half of New Mexico. Eight of these plantings were successfully established and evaluated for several years. Seven of the eight contained other black grama accessions for comparison. 'Nogal' was rated equal or superior to the other strains for stand, vigor, and performance in all but two instances (Table 4). It was superior to A-3730 in stolon spread in four plantings. These two accessions were not rated for stolon spread in the other planting in which they were present because of heavy overgrazing.

'Nogal' black grama is recommended for release because of its above-average ability to propagate by stolons, better-than-average seed production under irrigation, and its performance in stand establishment and herbage production under both irrigated and dry-land conditions.

Breeder and foundation seed will be produced by the Los Lunas Plant Materials Center. Limited quantities of seed will be available to growers through the Soil and Water Conservation District Seed Increase

Program and through Cooperative Agreement with the New Mexico Crop Improvement Association. Standards for all classes of seed are contained in the latest edition of the New Mexico Seed Certification Handbook.

Approval signatures:

Marvin L. Wilson, Associate Director
New Mexico Agricultural Experiment Station — Date: July 19, 1971

Arden A. Baltensperger, Head
Agronomy Department, New Mexico State University — Date: 13 July 71

Fred B. Widmoyer, Head
Horticulture Department, New Mexico State University — Date: JUL 13 1971

Kenneth L. Williams, State Conservationist
U.S.D.A., Soil Conservation Service — Date: 6-24-71